

# The Monitoring of Hazardous Air Pollutants (HAPs)—A Critical Examination

California Air Resource Board, Sacramento, CA  
August 15-17, 2006

## Workshop Objective

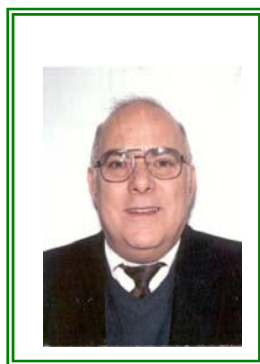
California Polytechnic State University, in conjunction with the United States Air Pollution Training Institute (APTI) and State of California/Air Resource Board, will be co-sponsoring a comprehensive three-day workshop on EPA's *Compendia* addressing methodologies for characterizing hazardous air pollutants (HAPs) in the ambient air. The objective of this workshop is to provide personnel the needed background information, checklists and up-to-date technology so participants can develop their own HAPs monitoring program. This workshop will address air toxic regulations, developing monitoring plans and protocols, sampling for volatile organics (specially-treated canisters, multi-bed adsorbents, cryogenic trapping, and on-line GC monitoring), acid aerosols (annular denuder), semi-volatiles/dioxin/furan/PCBs (PUF/XAD-2), and particulate matter (time-integrated and real-time).

## Who Should Attend

This course is geared towards environmental professionals with a general understanding of ambient air monitoring who need to branch out into pollutant-specific HAPs sampling methods. The workshop is targeted towards ambient air monitoring programs in California as well as other states.

## Workshop Instructor

William T. "Jerry" Winberry, Jr., Principal Environmental Scientist with EnviroTech Solutions, has more than 25 years of experience in air monitoring. Dr. Hal Cota, Cal Poly's EPA Area Training Center Director, will assist in the course.



## What We'll Focus On

The workshop will present standardized methods for quantifying HAPs in the ambient air and around hazardous waste sites as outlines in EPA's *Compendia* methodology. Workshop topics will include:

- EPA and State of California Regulations
- Defining Air Pollutants by Vapor Pressure and Boiling Points
- Meeting the Unit Risk Detection Limit Requirements!

### Organic Compendium-Second Edition

- **Method TO-1A/TO-17:** Solid Adsorbent Sampling for Volatile Organic Compounds (Active and Passive)
- **Method TO-4A/9A/13A:** Sampling for Pesticides, Herbicides, Dioxin/Furans and PCBs
- **Method TO-11A:** Sampling for Formaldehyde and other Carbonyls and Ketones
- **Method TO-14A:** Sampling for Volatile Organics Using Specially-treated Canisters

### Inorganic Compendium

- **Method IO-1:** Continuous Real-time Monitoring for PM-10/PM-2.5 in Ambient Air
- **Method IO-2:** Time-integrated Monitoring for PM-10/PM-2.5 in Ambient Air
- **Method IO-4:** Sampling for Atmospheric Acidic and Basic Gases
- **Method IO-5:** Sampling for Atmospheric Mercury
- **Quality Assurance/Quality Control** Requirements for EPA's *Compendia* Methodology
- **Case Studies:** Drake Chemical Superfund Site, McFarland Community Monitoring, Warren County PCB Monitoring
- **Automated Sampling for VOCs:** Enhanced O<sub>3</sub> Program

On Wednesday, a tour of a local HAPs analytical laboratory will be available to observe adsorbent and canister analysis by GC/MS.

## Workshop Manuals

Three manuals will support workshop presentations and field videos.

- **Student Workbook:** *This workbook contains the course agenda, copies of selected slides and background material from each of the topic areas along with specific method checklists.*
- **Student Manual (on CD):** *This manual contains full copies of EPA's Compendia (Revised Organic and Inorganic) along with selected HAPs monitoring protocols and analytical method. In addition, the student manual will include method specific QA/QC checklists.*
- **Quality Control Procedures for Ambient Air Monitoring Utilizing EPA's Compendia Methodology (on CD):** *This manual contains full documentation for quality control procedures for implementing Compendia methodology in an ambient air or hazardous waste monitoring program. This manual was developed for the U.S. Army Corps of Engineers as part of their Engineering Manual series of guidance documents for ambient air monitoring.*

At the end of this course, the participants should have an understanding of the basic ambient air methods for characterizing accurately HAPs concentrations in communities and around hazardous waste sites.

**NOTE:** The workshop will begins each day at 8:30pm and ends each day at approximately 5:00 p.m.

## Register Today—Space is Limited!

This is a special offering of EPA's Air Pollution Training Institute (APTI) Course #401, Sampling and Analysis for Hazardous Air Pollutants (HAPs). Details and Registration information is available on line at <http://ceenve.calpoly.edu/cota/epa/Default.htm> or contacting Dr. Hal Cota (805-459-3246) at [hcota@calpoly.edu](mailto:hcota@calpoly.edu)

Registration Form

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*This form may be duplicated for additional registrations. Please print in ink or type. Further details on fees for non-governmental employees:*  
[http://ceenve.calpoly.edu/cota/epa/general\\_info.htm#fees](http://ceenve.calpoly.edu/cota/epa/general_info.htm#fees)

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Job Title	E-mail Address	
Company/Organization		
Business Address (No. and Street or Box No.)		
City	State	Zip Code
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Location

The workshop will be held at California Air Resource Board (CARB) training facility, 1001 I Street, Sacramento, CA 95812. The course is set in the heart of vibrant & historic downtown Sacramento, with over 100 unique shops, activities, restaurants and museums. Attractions include Historic Old Sacramento, The State Capitol, Crocker Art Museum, Federal Court House, Sacramento Convention Center, West Field Mall, Raley Field, the University of Davis (Go Aggies) and California State University of Sacramento (Go Hornets). Further information on the Program is available on-line at <http://ceenve.calpoly.edu/cota/epa/Default.htm>

Accommodations

A limited number of rooms at government rate are available for participants of EPA’s APTI 401 at:

Holiday Inn Express Sacramento Convention Center  
728 Sixteenth Street  
Sacramento, CA 95814  
916-444-4436 (Direct)  
1-888-465-4329 (Reservations)

The Holiday Inn Express Sacramento Convention Center is within walking distance of California Air Resource Board (CARB) training facility, 1001 I Street, Sacramento, CA where the course will be offered.

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